FE212
WIRE DRAG

Diagram No. 1247

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey Wire Drag

Field No. RH-20-3-73

Office No. FE-212WD

LOCALITY

State Florida

General Locality Jupiter Inlet

Locality Offshore

1973

CHIEF OF PARTY
CDR L.E. Pickens

LIBRARY & ARCHIVES

DATE November 20, 1974

FE212
WIRE DRAG

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as;

FE No.1 1974WD

FE No. 1
1974
WIRE DRAG

FE212

Diag. Cht. No. 1247.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey WIRE DRAG

Field No. RH-20-3-73 *Office No* SP-AMC-1-RH-73

LOCALITY

State FLORDIA

General locality JUPITER INLET

Locality OFFSHORE

19 73

CHIEF OF PARTY

CDR.L.E.PICKENS

LIBRARY & ARCHIVES

DATE 11-20-74

FE No. 1
1974
WIRE DRAG

FORM C&GS-537
(5-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.
RH 20-3-73

State FLORIDA

General locality JUPITER INLET

Locality

Scale 1:20,000 Date of survey 20-27 MARCH 1973

Instructions dated 15 JANUARY 1973 Project No. SP-AMC-1-R/H-73

Vessel NOAA SHIPS RUDE & HECK

Chief of party CDR. L.E.PICKENS

Surveyed by SHIPS' PERSONNEL

Soundings taken by echo sounder, hand lead, pole

Graphic record scaled by

Graphic record checked by

Protracted by Automated plot by CALCOMP AMC

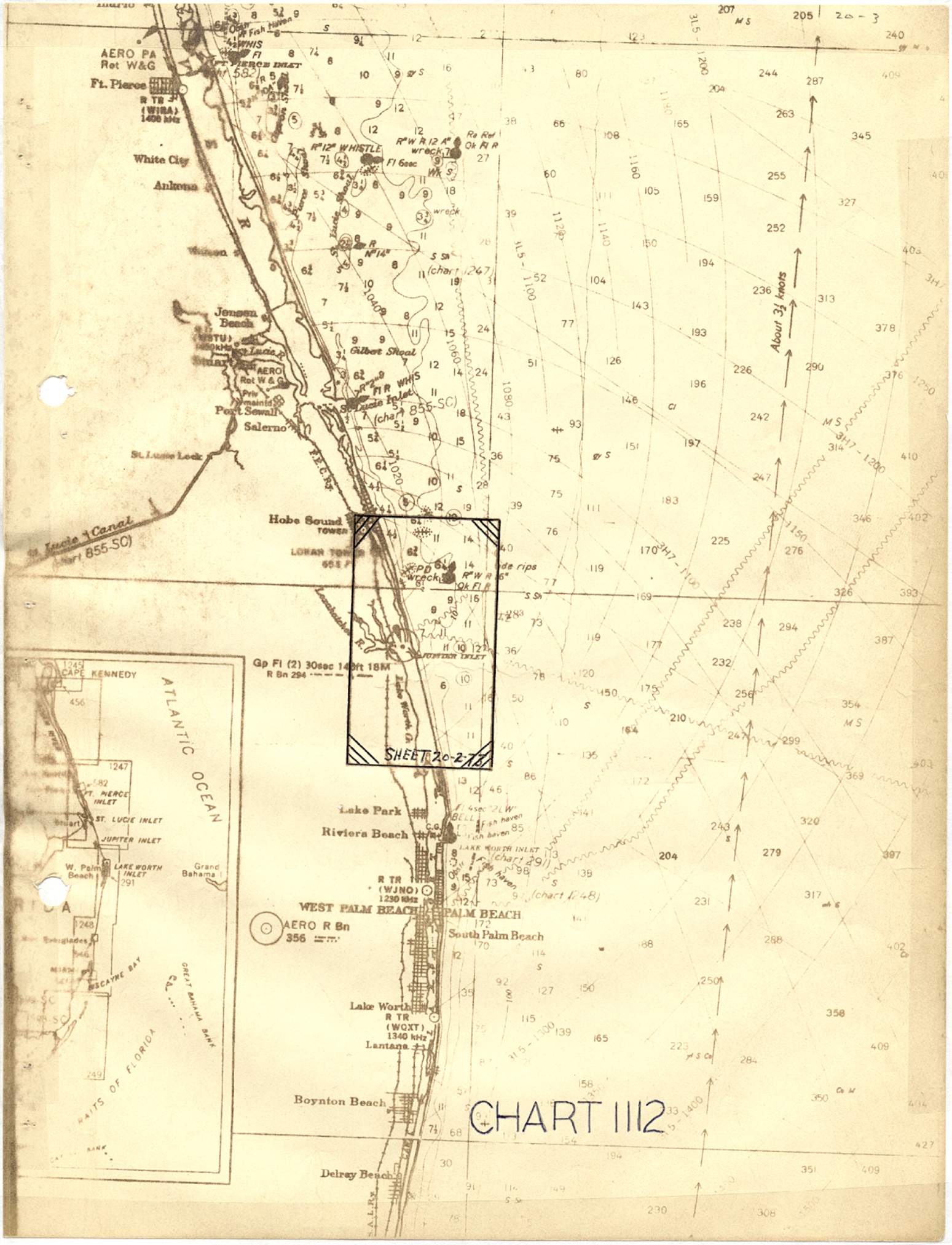
Soundings penciled by AMC Personnel

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ BASED ON ~~PREDICTED~~ Smooth TIDES

REMARKS: Ship and N&F buoys plotted by calcomp plotter
all other work done manually

USCOMM-DC 37009-P66

TABLE OF CONTENTS


AERO PA
Rot W&G
Ft. Pierce
R TR 3
(WIRA)
1400 kHz
White City
Ankona
Jensen Beach
(WSTU)
St Lucie R.
AERO
Rot W & G
Priv maintd
Port Sewall
Salerno
St. Lucie Lock
St. Lucie Canal
(chart 855-SC)
Hobe Sound
TOWER
LORAN TOWER
Gp Fl (2) 30sec 140ft 18M
R Bn 294
SHEET 20-2-72
Lake Park
Riviera Beach
R TR
(WJNO)
1230 kHz
WEST PALM BEACH
AERO R Bn
356
PALM BEACH
South Palm Beach
Lake Worth
R TR
(WQXT)
1340 kHz
Lantana
Boynton Beach
Delray Beach
About 3½ knots
CAPE KENNEDY
ATLANTIC OCEAN
FT. PIERCE INLET
ST. LUCIE INLET
JUPITER INLET
W. Palm Beach
LAKE WORTH INLET
Grand Bahama I
BISCAYNE BAY
GREAT BAHAMA BANK
KEYS OF FLORIDA
CHART 1112

80 05

80 00

27 05

OPR-SP-AMC-1-R/H-73

WIRE DRAG- SHEET 20-3-73

JUPITER INLET, FLORIDA

NOAA SHIPS RUDE & HECK

L.E.PICKENS, CHIEF OF PARTY

MARCH 1973

SCALE 1:80,000

PROGRESS SKETCH

27 00

DESCRIPTIVE REPORT

TO ACCOMPANY

WIRE DRAG FIELD NUMBER RH-20-3-73

PROJECT SP-AMC-1-R/H-73

JUPITER INLET, FLORIDA

1973

CDR L.E. PICKENS

NOAA SHIPS RUDE & HECK

A. AUTHORITY -

This project was authorized under Project Instructions SP-AMC-1-R/H-73, Wire Drag, Southeast Coast Investigations, dated 15 January 1973; also, Change 1, dated 9 February 1973, Change 2, dated 14 February 1973, and Change 3, dated 22 February 1973.

B. CHARACTER AND LIMITS OF THE WORK -

The purpose of this project was to investigate and prove or disprove the existence of a reported item offshore of Jupiter Inlet, Florida.

The locality of the survey, covered by C&GS Charts 1247, 1248, and 1112 is as follows: Sheet layout (boat sheet) is from Latitude 26°51'N to 27°04'N and from Longitude 79°59'W to 80°08'W.

The reported position of the item is as follows: Item B-4: Latitude 27°00.6'N, Longitude 80°02.8'W. (Approx. charted pos.

The entire survey was conducted on a scale of 1:20,000 using Raydist DR-S Range-Range control.

C. CONTROL AND SHORELINE

Raydist DR-S Range-Range control was utilized. The Raydist was operating on a frequency of 3300.4 KHz, giving a lane width of 45.39904 meters. There was no shoreline on the sheet. shoreline added from chart 1247, in brown. (HWL trimmed off)

Two Raydist shore stations, FAT and WORTH, were utilized for control. FAT, located 6.7 miles north of the Fort Pierce, Florida entrance channel, served as the Red station. WORTH, located near Jupiter Inlet, Florida, served as the Green station.

Upon completion of the survey, the stations were dismantled, but both stations are recoverable as described in the enclosed station descriptions under attachment VII. A list of all signals used is given in Attachment I.

D. DATE OF SURVEY

Operations on SP-AMC-1-R/H-73 (Sheet R/H-20-3-73) (FE No. 1, 1974) were begun on 20 March 1973 and completed on 27 March 1973.

E. TIDAL REDUCERS

Preliminary reduction of each days data was done using predicted tides.

Actual tidal data has been furnished by the Rockville,Office for the standard tide gauge at Miami,Beach, Florida with correctors for Fort Pierce, Florida.

Servicing and levels to this gauge were not required.

F. JUNCTIONS

Not applicable.

C. SPLITS

No splits exist on Sheet R/H-20-3-73. FE No. 1, 1974

H. GROUNDINGS AND HANGS

See Attachment II.

I. GENERAL NOTES

Morning and evening calibrations were generally made by running a range off the Fort Pierce Channel Entrance (see Attachment I).

In addition to morning and evening calibrations, frequent lane counts were taken whenever practical on navigation buoys.

Throughout this survey an 800 ft. towline was utilized; thus the distance from the Raydist antenna to the end buoy was 265 meters.

The following occurance should be noted when verifying this survey:

A Day (20 March 1973)

Strip 2: Hung metal bar protruding one foot from bottom (according to divers) in 35 feet of water at the same time we hung buoy R "WR16". Few tests due to fact both launches broken down and weather was marginal for skiff use.

J. CURRENTS

In general, currents were from the North. However, it was found to be advantageous to conduct our own "current survey" prior to planning a strip. This was accomplished by setting a tester to the approximate depth of the drag, plotting its position as it entered and again as it was retrieved from the water and noting the length of time involved. In this manner both velocity and direction were determined.

K. DISCREPANCIES AND COMPARISIONS WITH RECENT SURVEYS AND CHARTS

In accord with Page 3, Paragraph 2 of Project Instructions, prominent new landmarks were located, charted landmarks were re-evaluated, and a letter sent to Coast Pilot Branch. See Attachment IX.

In general, charted depths from the most recent charts were found to be quite reliable, and were used daily in conjunction with hydrographic surveys supplied by AMC and Ship Hydro run immediately prior to wire dragging.

L. PERSONNEL AND EQUIPMENT

Throughout this survey the RUDE & HECK acted as guide and end vessel respectively. Both ships are equipped with Raytheon DE-723 fathometers which were used to plan the drag strips. Ship's launches and skiffs alternated as drag tester units, dependent on the state of the sea and the weather.

Standard wire drag equipment was used throughout the survey. It should be noted that during the 1972-73 inport period, some new intermediate buoys were obtained. These buoys were left over from the old drag boats - WAINWRIGHT & HILGARD. These buoys appear to be the same as our standard intermediate buoys, however, some question exists as to the weight and towing characteristics.

Officers aboard during this survey included: CDR L.E. Pickens, LCDR W.M. Noble, LTJG S.H. Manzo, LTJG B.L. Wescott, ENS H.B. Arnold, ENS R.D. Wells, and ENS T.A. Bergner.

M. MISCELLANEOUS

Operations were hampered by launch breakdowns and by heavy swells originating to the northeast of the working area. The latter resulted in accepting a larger combined lift and swell than normal, and thereby reducing effective depths achieved.

N. SUMMARY

Item B-4

This position was not covered by deep enough effective depths

A wreck (Republic) at Lat. 27°00.6'N, Long, 80°02.8'W shown charted as cleared to 31 feet. This wreck area was cleared to a one NM radius and has not been located. The only object found by divers was a small metal bar extending one foot up from the bottom at an effective depth of ~~35~~ 34 ~~1/2~~ feet using ~~predicted~~ actual tides. This is not considered a hazard to navigation and was not reported as such.

O. RECOMMENDATIONS

Recommend Item B-4 be charted as cleared to ~~35~~ 29 feet Obstr. This item is considered complete.

APPROVAL SHEET

All record of this survey prior to smooth plotting are hereby approved. Item B-4 is considered complete and adequate for charting. The field work was personally supervised by the undersigned and the boat sheet and records were inspected daily.

CDR Leonard E. Pickens
Commanding Officer
NOAA Ships RUDE & HECK

LIST OF ATTACHMENTS

ATTACHMENT I

A. RAYDIST CONTROL STATIONS

station	lattitude	longitude	remarks
FAT	27 34 38.629	80 19 38.080	RED STATION
WORTH	26 57 37.855	80 05 02.040	GREEN STATION

B. VISUAL CONTROL SIGNALS

signal	lattitude	longitude	remarks
* PIERCE 2	27 28 11.217	80 17 27.9	FRONT RANGE
TANK	27 27 23.520	80 19 44.1	REAR RANGE
J.C. PARK TANK	27 27 10.160	80 17 13.3	LEFT ANGLE

* NOTE: Pierce 2 was a visual signal constructed by ship's personnel over the disc of the same name. The structure was approximately 25 feet tall.

ATTACHMENT II

LIST OF GROUNDINGS AND HANGS

Position No. & Dayletter	Buoy No.	Lattitude	Longitude	Grounded Effective Depth	Cleared by Day & Strip No.	Cleared Effective Depth	Charted Depth	Remarks
19-A	2-3	27 00.67	80 02.80	~~35~~ 34	A-1	~~29~~ 29	~~31~~ ----	Metal bar extending one foot above bottom. Not considered a hazard.
19-A	2-3	27 00.58	80 02.61	----	----	----	~~31~~ ----	Hung buoy "WR16" from S. to N. at same time as above hang.
10-B	5-6	27 00.58	80 02.61	----	----	----	~~31~~ ----	Hung buoy "WR16" from N. to S.

20-3

ATTACHMENT III

DAILY RAYDIST CORRECTORS

Date	Day letter	RUDE Red	RUDE Green	HECK Red	HECK Green
20 March 1973	A	+0.2	0.0	-0.1	-0.1
27 March 1973	B	0.0	0.0	-0.1	-0.2

ATTACHMENT IV

STATISTICS

date	day letter	strip no.	volume no.	no. of positions	LNM	SNM
20 March 1973	A	1	I	10	1.65	1.49
20 March 1973	A	~~1~~ 2	I	9	1.20	1.02
27 March 1973	B	1	I	13	1.20	1.08

ATTACHMENT V

FLOATING AIDS TO NAVIGATION

name	lattitude	longitude	remarks
BUOY "10A"	27 26.55	80 13.45	Used to check lane count.
Buoy R"12"	27 23.18	80 07.65	Used to check lane count.
Buoy R"WR12A"	27 23.45	80 03.15	Used to check lane count.
Keeper Buoy for R"WR12A"	27 23.43	80 03.38	Used to check lane count.
Buoy R"WR16"	27 00.58	80 02.62	Used to check lane count.

CHS-2
4-6-71

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

SP-AMC-1--R/H-73

1. Project # ~~ORR~~ 2. Reg. # H- 3. Field # RH-20-3-73

4. Type of Control Raydist (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 3300.4 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X] Range-Visual [ ]

Range One (R_1) Station I.D.	FAT	Lat.	27 °	34 '	38.629 "
		Long.	80 °	19 '	38.080 "
Range Two (R_2) Station I.D.	WORTH	Lat.	26 °	57 '	37.855 "
		Long.	80 °	05 '	02.040 "

Hyperbolic (3-station) [ ] Hyper-Visual [ ]

Slave One Station I.D.		Lat.	°	'	"
		Long.	°	'	"
Master Station I.D.		Lat.	°	'	"
		Long.	°	'	"
Slave Two Station I.D.		Lat.	°	'	"
		Long.	°	'	"

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [ ] A=Ø

Survey area is to observer's Left [X] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left.

Slave Two must be to observer's Right.

[X] This form is submitted as an aid in preparing a boat sheet.

[ ] This form applies to all data on this survey.

[ ] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)	
						to
						to
						to

9. Remarks: R1 RED, R2 BLUE

2-18-71

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. SP-AMC-1-R/H-73
2. Reg. No. H-~~9369~~
3. Field No. R/H 20-3-73
4. Requested By M W Johnson AMC
5. Ship or Office Verification
6. Date Required asap

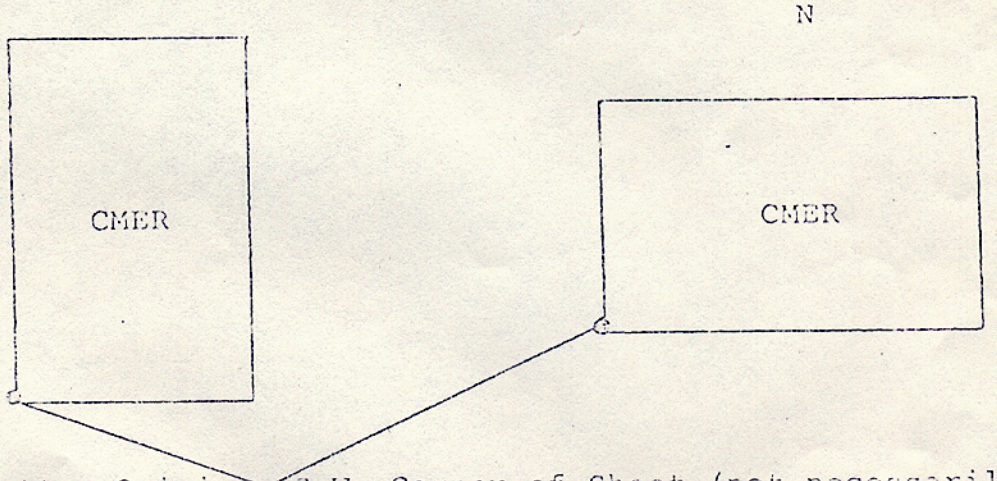
7. Polyconic [ ] Modified Transverse Mercator [XX]
8. Central Meridian of Projection 080 ° 02 ' 00 "
9. Survey Scale: 1:20,000
10. Size of Sheet (check one):

36 x 54 [ ] 36 x 60 [ ] Other [XX] Specify 36"X36"

11. Sheet Orientation (check one):

NYX = 1 [ ] NYX = Ø [x]

N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 26 ° 50 ' 00 "

Longitude 080 ° 09 ' 00 "

13. G.P.'s of triangulation and/or signals attached [x]
14. Material Desired: Tracing Paper [ ] Mylar [ ]

Smooth Sheet [x] & Other [x] Specify A&D sheet .003 mylar

15. Remarks: Smooth sheet type grid and Raydist arcs

A&D sheet, tick marks only

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H- ~~9360~~ WD
SP-AMC-1-RH-73

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/has not been made. A new final sounding printout has/has not been made. NA

Date: November 14,1974

Signed: William L Jonns
William,L.Jonns
Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: November 14,1974

Signed: C. Dale North Jr.
C.Dale NOrth,Jr.LCDR,NOAA
Title: Chief, Processing Division

VERIFICATION NOTES
SURVEY H-SP-AMC-1-RH-73
RH-20-3-73

This wire drag survey appears to be complete.The location and clearence of the wreck,item B4,appears to be adequate.

William L Jonns
William L.Jonns
Chief,Verification Branch,AMC.

Norfolk,Va.
November 11.1974

NOAA FORM 76-155
(11-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

SURVEY NUMBER

F.E.No. 1-1974
W.D.

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
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										21
										22
										23
										24
										25

NOAA FORM 77-27
(9-72)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. ~~H-7987~~ F.E.No.1-1974 W.D.

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	wire drag strips BOAT SHEETS	6
DESCRIPTIVE REPORT	1	OVERLAYS	

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS						1
VOLUMES wire drag	2					
BOXES				1		1

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				64
POSITIONS CHECKED		10		
POSITIONS REVISED		3		
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0 Elec control		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		3	—	
JUNCTIONS		0	—	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		0	—	
SPECIAL ADJUSTMENTS		0	2	
ALL OTHER WORK	2	24	19	
TOTALS	2	27	21	

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY Johnnie Griffin	Oct.24,74	Oct.24,74
VERIFICATION BY Michael Johnson	Oct.25,74	Oct.31,74
REVIEW BY D J Romerburg	11-27-74	12-06-74

Insp F. B. Powers 2-27-75 11 hrs

* U.S. G.P.O. 1972-769-562/439 REG.#6

REVIEW
FIELD EXAMINATION NO. 1, 1974 W.D.
WIRE-DRAG INVESTIGATION
FLORIDA EAST COAST, VICINITY OF JUPITER INLET

1. This wire-drag field examination was made in compliance with Project Instructions SP-AMC-1-R/H-73, dated January 15, 1973.

2. The purpose of the field examination was to verify or disprove the wreck of the REPUBLIC charted in lat. 27°00.61', long. 80°02.68'. Information was desired by the Coast Guard as a basis for possible discontinuances of the wreck buoy "WK 16."

3. The results of the investigation are shown on the accompanying Mylar overlay inserted in the Descriptive Report.

4. This wreck was previously investigated on FE 5 (1944) and falls within the area of survey H-8955 (1967).

The present wire-drag hung at 34 feet on a metal bar reported by divers to protrude 1 foot above the bottom. The position on the present examination is 320 meters westward of the position of the wreck found on FE 5 (1944). The present survey clearance over the prior position of the wreck is only 28 feet, which is 3 feet less than the prior cleared depth and should not supersede it. The present wire-drag is not considered to have effectively covered the prior position of the wreck.

Soundings on survey H-8955 (1967) do not conflict with the effective drag depths of the present field examination. A shoal with a least depth of 35 feet falls in the immediate vicinity of this examination.

5. The cleared depth of 31 feet charted on chart 1247, 5th Ed., dated April 15, 1972, in lat. 27°00.61', long. 80°02.68' from FE 5 (1944) should be retained on the chart. However, it is charted slightly out of position and should be revised in accordance with the position shown on the field examination.

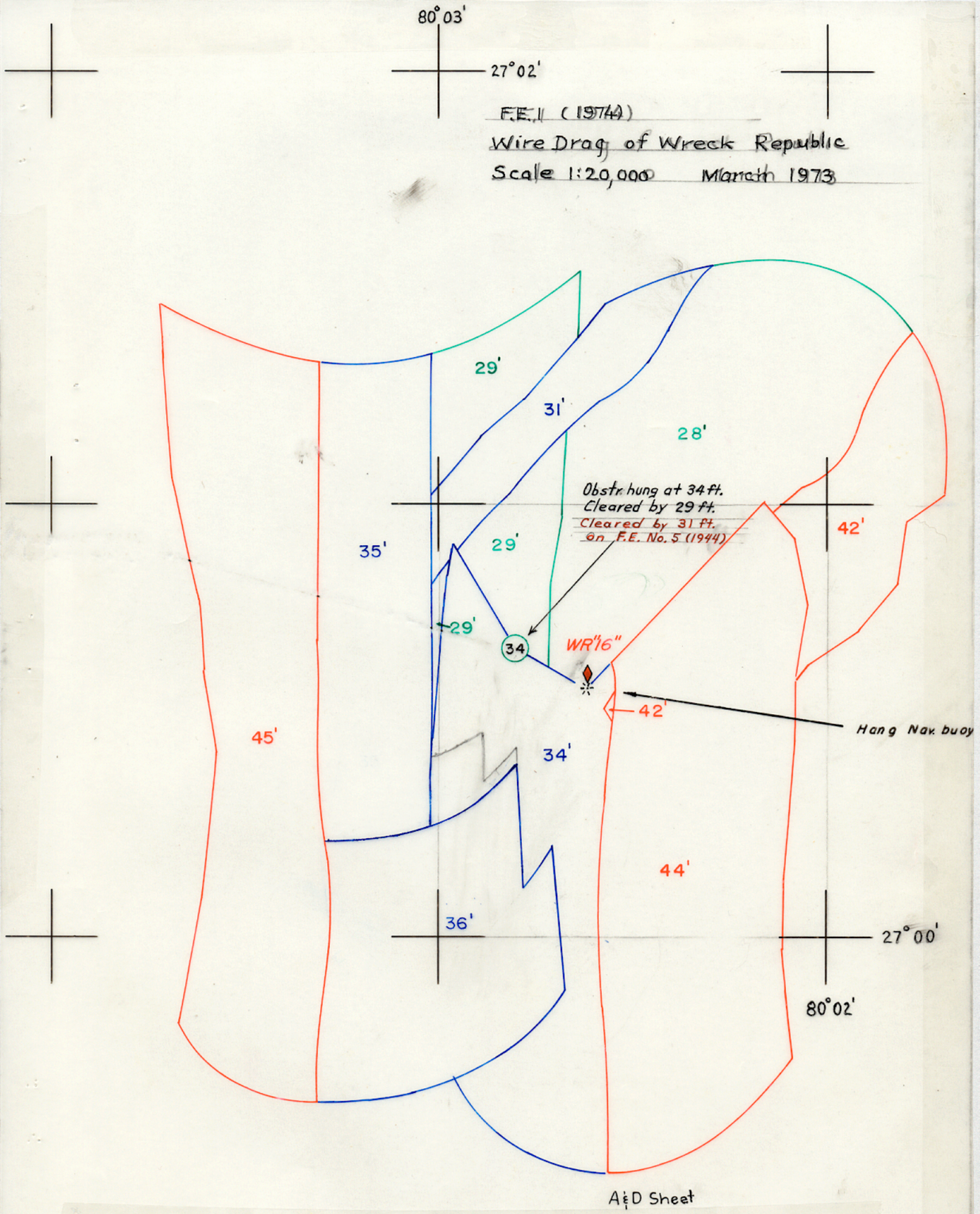
The hang of 34 feet in lat. 27°00.67', long. 80°02.8' on the present field examination is of minor significance as a feature and the cleared depth should be disregarded for charting.

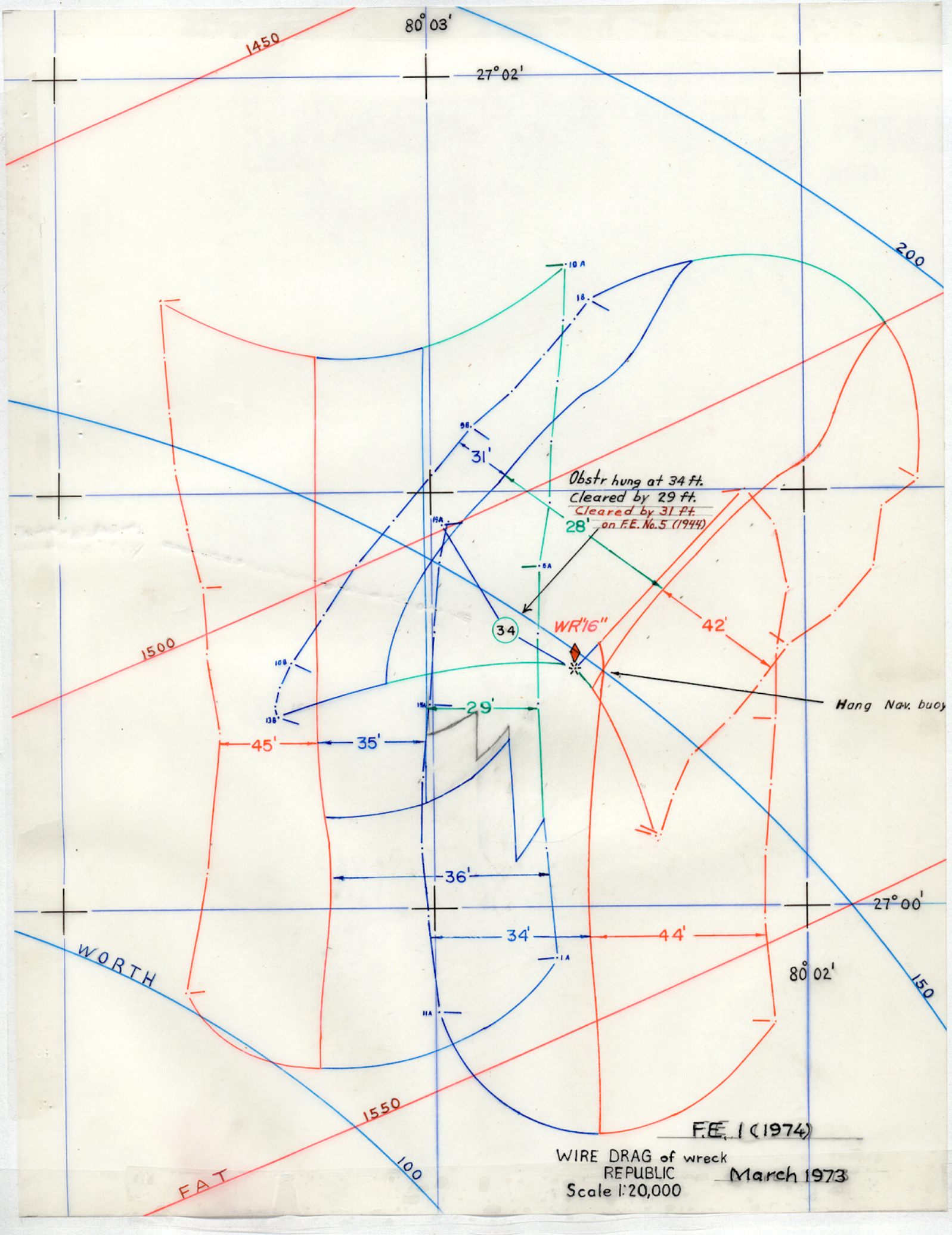
6. In smooth plotting this field examination minor errors in the effective drag depths on strip 1 of A day between position 2 and 4 and on the associated A and D sheet were found during review. These errors were not considered significant and do not warrant revisions.

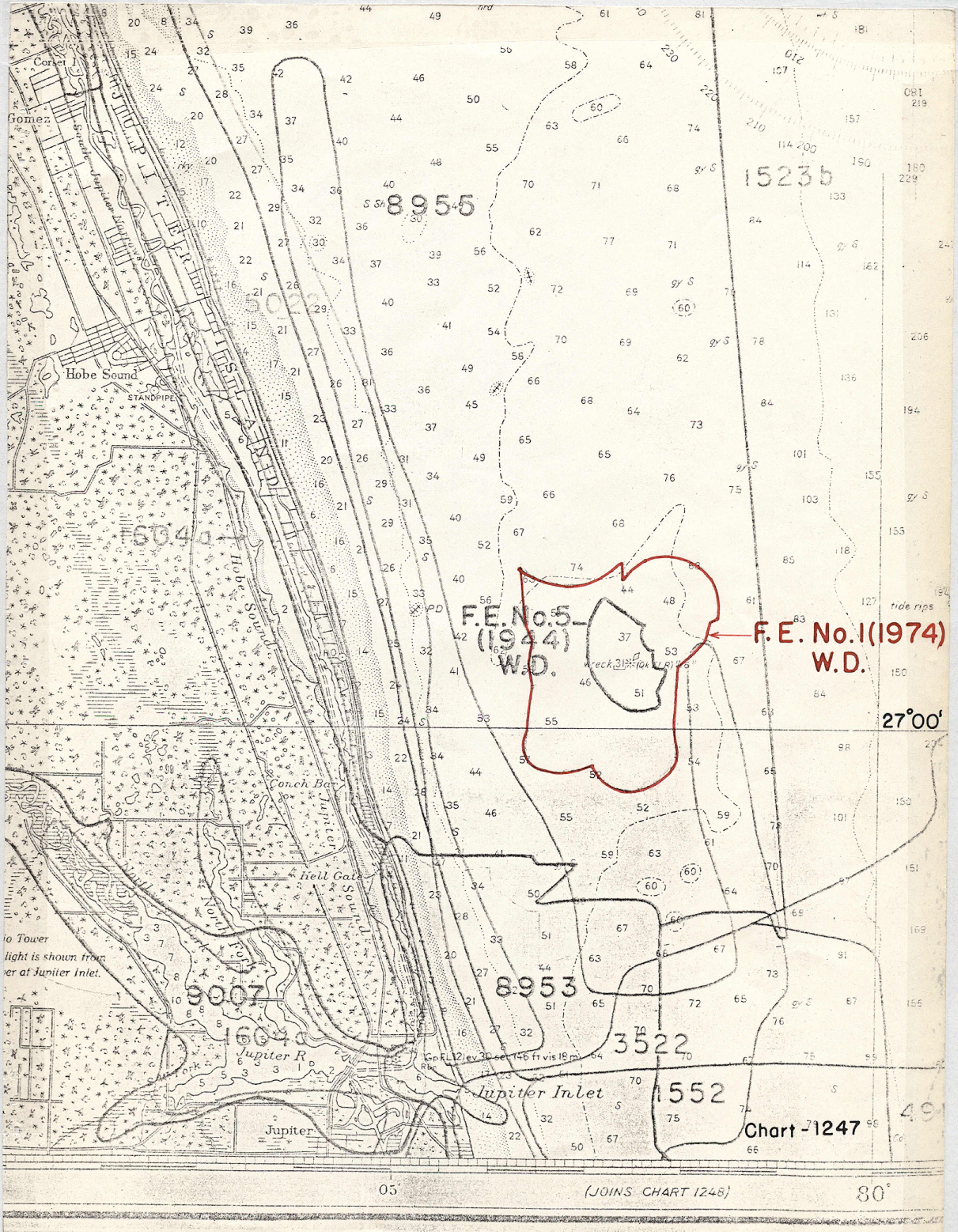
7. The Descriptive Report adequately covers all matters pertinent to this examination. No further discussion is considered necessary.

Reviewed by: D. J. Romesburg
December 6, 1974

Inspected by: F. B. Powers
February 27, 1975


80°03'
27°02'
F.E. II (1974)
Wire Drag of Wreck Republic
Scale 1:20,000 March 1973
29'
31'
28'
Obstr hung at 34 ft.
Cleared by 29 ft.
Cleared by 31 ft.
on F.E. No. 5 (1944)
35'
29'
42'
29'
34
WR"16"
42'
Hang Nav. buoy
45'
34'
44'
36'
27°00'
80°02'
A&D Sheet


80° 03'
27° 02'
1450
200
10 A
1B.
9B.
31'
Obstr hung at 34 ft.
Cleared by 29 ft.
Cleared by 31 ft.
on F.E. No.5 (1944)
28'
15A
5A
34
WR'16"
42'
1500
10B
13B
15A
29'
Hang Nav. buoy
45'
35'
36'
27° 00'
34'
44'
WORTH
80° 02'
150
11A
11A
1550
FAT
100
F.E. 1 (1974)
WIRE DRAG of wreck
REPUBLIC
March 1973
Scale 1:20,000



Published at Washington, D.C., May 1944 (2nd Edition)

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. F.E.No.1-1974 W.D.

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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